The claims have been amended to further clarify the recited invention. However, the applicants bring the following to the Examiner's attention.

The Office Action states that the term a "gene" can have several different meanings. However, the applicants agree with the PTO's interpretation of "gene" to mean a DNA coding sequence and submit that a person of ordinary skill in the art would understand that this interpretation is employed by the applicants, by reading the present specification. The Examiner is asked to bear this in mind when reading the claims.

The Office Action indicates that the term "the presence of light" makes the claims unclear. The claims have been amended to employ language so that the sequence of SEQ ID NO:1 represses expression of a gene "in the presence of light compared with the expression in the dark". Thus, the amended claim language uses comparative terms to define the repressive effect.

With respect to the issue of claim 2 further limiting claim 1, claim 2 has been amended to more clearly recite that the sequence of SEQ ID NO:1 exists in the sequence of SEQ ID NO:2. Thus, claim 2 clearly limits claim 1.

The applicants submit that all presently considered claims are fully allowable under Section 112, second paragraph.

Claims 1, 2, 4, 5 and 7-13 stand rejected under 35 USC 112, first paragraph, enablement, because the Examiner finds the SEQ ID Nos 1 and 2 without a constitutive promoter to be unenabled.

The claims have been amended as shown above to make it clear that in every independent claim, the gene is preceded by a promoter. More particularly, the applicants note the following.

With respect to the issue of repression and expression, the claims have

been amended, as noted above, to more clearly recite that in every independent claim the gene is preceded by a promoter.

The Office Action states that "A DNA sequence search of SEQ ID NO:1 produced 45 hits out of the first 45 results, all with 100% match." However, most of these matched sequences are mammalian DNA sequences, and show no expression or repression function.

Accordingly, it is highly unpredictable that any DNA fragment containing SEQ ID NO:1 would function to repress expression.

However, the applicants assert that the mere fact that SEQ ID NO:1 is found in many mammalian DNAs does not make the repressive effect of the sequence of SEQ ID NO:1 unpredictable. As shown in Figures 6 and 7 of the present application, it is clear that the sequence of SEQ ID NO:1 is capable of repressing the expression of a downstream gene in the presence of light. The applicants submit that this effect is independent of the origin of the sequence, whether it be a plant or a mammal.

Furthermore, with regard to the statement in the Office Action that "it is highly unpredictable that any DNA fragment containing SEQ ID NO:1 would function to repress expression", the applicants submit that DNA fragment is claimed that contain SEQ ID NO:1. To the contrary, the claimed fragments are limited to those which repress expression in the presence of light. The applicants submit that the DNA fragment of the present invention may be additionally defined by its characteristic function.

Regarding the promoter of the present invention, the Office Action states at page 7, first paragraph, that: "Applicant teaches a CaMV 35S promoter and the promoter comprising SEQ ID NO:3 as having the desired function. Applicant gives

no guidance, other than these examples, for selecting a promoter, which would function in the claimed manner."

However, the applicants point out that the examples with regard to the two promoters provide sufficient basis to a person of ordinary skill in the art, to support the light repressive effect of the sequence of SEQ ID NO:1 on the expression of a gene to be achievable with respect to expressions under the control of many other promoters. In this connection, please note that the promoter in SEQ ID NO:3 is the one which is associated with the sequence of SEQ ID NO:1 in nature, while the CaMV 35S promoter represents a promoter commonly used in the genetic engineering.

As for guidance to select a promoter, the Examiner is asked to refer to page 11, line 19 - page 12, line 19 of the present specification. The applicants submit that there will be many other known promoters which may be used in the present invention, and based upon the knowledge of a person of ordinary skill in the art, there is adequate support for the promoters as presently claimed.

With regard to claims 2 and 5, at page 7, second paragraph, the Office Action states that "Additions, substitutions, and/or deletions encompass many changes, from single nucleotides to very large sequences. No guidance is given other than that the core sequence of SEQ ID NO:1 be retained in the final sequence. It is unpredictable that any single one of these polynucleotide sequences would function in the same way as SEQ ID NO:2, in fact most would be nonfunctional".

The applicants submit, however, that an important aspect of the invention is the finding of the fact that the 12-bp sequence of SEQ ID NO:1 is sufficient to confer light repressibility on the expression of a gene placed downstream of the

sequence (for example, refer to page 13, lines 2-5 of the present specification). The sequence of SEQ ID NO:1 is a longer one containing SEQ ID NO:1. Therefore, in contrast to the Office Action, the applicants submit that it is predictable that any single one of the sequences of Claims 2 and 5 will function in the same way as SEQ ID NO:2.

Accordingly, the applicants submit that all presently considered claims are fully allowable under Section 112, first paragraph.

The applicants respectfully traverse the rejection of claims 1-13 under 35 USC 102(b) in view of Schroeder et al. This references does not anticipate the presently claimed invention or make it obvious.

By referring to the presently amended claims, as shown above, please observe that Schroeder does not disclose any isolated DNA fragment containing the sequence of SEQ ID NO:1. Moreover, Schroeder does not even remotely suggest the possibility that the sequence of SEQ ID NO:1 has the light repressive effect on the expression of a gene placed downstream of the sequence.

The presently claimed invention is no where disclosed, suggested or made obvious by the teachings of Schroeder. The presently claimed invention is not only allowable under Section 102(b), but is also allowable under Section 103(a) in view of the cited art.

The applicants respectfully traverse the rejection of claims 1-13 under 35 USC 102(a) in view of Inaba et al. This references does not anticipate the presently claimed invention or make it obvious.

However, as noted by the Examiner, the applicants' claim of a priority date, March 12, 1999, precedes the publication date of Inaba, June, 1999. The Examiner points out that a certified English translation of the Japanese priority

document has not be submitted. Accordingly, the applicants enclose with this Amendment, a certified English translation of the Japanese priority application, JP 066551/1999, filed March 12, 1999 to perfect their claim of priority. Withdrawal of the Inaba reference is requested.

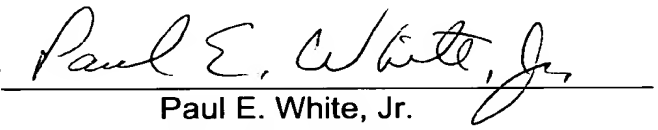
In view of the above, it is believed that this application is in condition for allowance and a Notice to that effect is respectfully requested.

The applicants note at the top of page 2 of the Office Action and under Attachments on page 1, that Information Disclosure Statement (PTO-1449) Paper No 7 is supposed to be attached. However, the two pages of the PTO 1449 (dated November 13, 2000) were not enclosed with the Office Action. Accordingly, please return these sheets signed and initialed by the Examiner in accordance with MPEP 609C(2).

Allowance of this application is respectfully requested.

Respectfully submitted,

MANELLI DENISON & SELTER, PLLC

By 

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Proposed Amendments To Claims 1-8 and 11-13 Showing Deletions And Insertions.

Claim 1. (Amended) [A] An isolated DNA fragment containing the sequence of SEQ ID NO: 1 as a core sequence, whereby expression of a gene placed downstream of said DNA fragment and a promoter operatively linked to said gene is repressed in the presence of light compared with expression in the dark.

Claim 2. (Amended) The DNA fragment of claim 1 which is a cis-element containing the core sequence of SEQ ID NO:1 in the sequence of SEQ ID NO: 2 or a nucleotide sequence obtained by deletion, substitution and/or addition of one or more bases in a part of the sequence of SEQ ID NO: 2 other than the core sequence of SEQ ID NO: 1, whereby expression of a gene placed downstream of said DNA fragment is repressed in the presence of light compared with expression in the dark.

Claim 3. (Amended) [The] An isolated DNA fragment [of claim 1] containing the sequence of SEQ ID NO: 1 as a core sequence and a constitutive promoter in [comprising] the [nucleotide] sequence of SEQ ID NO:3, whereby expression of a gene placed downstream of said sequence of SEQ ID NO:3 is

repressed in the presence of light compared with the expression in the dark.

Claim 4. (Amended) [A] An isolated promoter containing the nucleotide sequence of SEQ ID NO: 1 as a core sequence in the upstream of the promoter, whereby expression of a gene placed downstream of said promoter is promoted in the dark but repressed in the presence of light.

Claim 5. (Amended) The promoter of claim 4 containing the core sequence of SEQ ID NO: 1 in the sequence of SEQ ID NO: 2 or a nucleotide sequence obtained by deletion, substitution and/or addition of one or more bases in a part of the sequence of SEQ ID NO: 2 other than the core sequence of SEQ ID NO: 1, whereby expression of a gene placed downstream of said promoter is promoted in the dark but repressed in the presence of light.

Claim 6. (Amended) [The] An isolated promoter [of claim 4] comprising the [nucleotide] sequence of SEQ ID NO:3, whereby expression of a gene placed downstream of said sequence of SEQ ID NO:3 is promoted in the dark but repressed in the presence of light.

Claim 7. (Amended) The DNA fragment of [any one of claims 1 to 3 having a constitutive expression] claim 1 or 2 wherein the promoter which is operatively linked to the gene to be expressed is a constitutive promoter linked downstream of said DNA fragment.

Claim 8. (Amended) The promoter of [any one of claims 4 to 6] claim 4 or

5 having a constitutive expression promoter linked downstream of said promoter but upstream of said gene to be expressed.

Claim 11. (Amended) An expression cassette comprising [a DNA fragment carrying a gene] the gene to be expressed linked downstream of the isolated DNA fragment or promoter of any one of claims [2 and 6] 1 to 6, 9 and 10, whereby expression of said gene is repressed [by] in the presence of light compared with the expression in the dark.

Claim 12. (Amended) A plant cell transformed with the expression cassette of claim 11, 14 or 15 [or a DNA fragment containing said cassette].

Claim 13. (Amended) A plant transformed with the DNA fragment of claim 11, 14 or 15 or a progeny [thereof] of the plant, and [a] an organ part of said plant or progeny.

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